

Application No. 09/933,743
Amendment dated 15 December 2005
Reply to Office Action of 15 July 2005

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REMARKS

The Examiner is thanked for the courtesy extended to the Applicant's agent during the interview held on 25 October 2005.

Compliance with 35 U.S.C. §101

Claims 1, 24 and 37 are submitted to comply with 35 U.S.C. §101.

Claim 1 recites a computer-implemented method for training a fuzzy logic inference system to produce an output indicative of a characteristic of an electrochemical test system.

Claim 24 recites an automatic battery testing method that involves training a fuzzy logic battery analyzer to assess the state of health of batteries of a known model.

Claim 37 recites training a characteristic measuring system to produce an output indicative of a characteristic of an electrochemical test system.

The Examiner's Attention is drawn to MPEP §2106-IV-B-2(b). During the interview, the Examiner indicated that claims 1 and 37 would be statutory if amended to recite that the test system is an electrochemical test system and that claim 24 is statutory because it relates to battery testing. The Applicant submits that claims 1, 24 and 37 all recite statutory subject matter.

Compliance with 35 U.S.C. §103

All of the claim rejections in the Office Action are based upon US 5664066 ("Sun") taken in combination with other references. Sun uses some language similar to that used in this application but relates to technology that is significantly different from that of this application.

Sun relates specifically to neural networks. The purpose of Sun is to set weights for different interconnections in a neural network. The context in which Sun operates is described, for example at col. 6, ln. 11-28. The Sun methods are used to train the neural network. When the neural network is operating the weights are fixed.

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The Office Action suggests that Figure 8 of Sun shows scaling of a membership function relative to a parameter value axis of the membership function. The Applicant submits that this is incorrect. The horizontal axis in Figure 8 represents "channel number" and not the value of any input parameter. Channel number is a characteristic of different inputs to Sun's neural network.

Independent claims 1, 24 and 37 have been amended for clarity. The claims are submitted to patentably distinguish Sun in the combinations recited in the Office Action at least because:

- Sun fails to disclose scaling a function along a parameter value axis in a context where values of the parameters can be obtained from a calibration system or battery, as claimed. Sun adjusts parameters that define functions that set weights ("membership intensity") (see col. 18, ln. 37-40). The weights relate to input channels which are features of a neural network.
- The functions that Sun uses to set such weights do not fail to disclose functions which "each produce an output that is a function of a value of a corresponding parameter" in the context of the claims of this application.
- Sun relates to training neural networks and therefore, a person skilled in the art would not consider it obvious to combine the technology described in Sun with the other cited references as alleged in the Office Action. For example, Singh et al. relates to a fuzzy inference system which is very different from the neural-network-based system described by Sun.

The dependent claims are submitted to further distinguish the cited references.

The Applicant submits that the claims of this application are in condition for allowance in light of the foregoing amendments and comments. The Applicant respectfully requests reconsideration and allowance of this application.

Respectfully submitted,

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